Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Annual Assessment of the Status of	)	CS Docket No. 96-133
Competition in the Market for the	)	
Delivery of Video Programming	)	

THIRD ANNUAL REPORT

Adopted: December 26, 1996 **Released: January 2, 1997**

By the Commission:

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I. INTRODUCTION

1. Section 628(g) of the Communications Act of 1934, as amended, ("Communications Act") requires the Commission to report annually to Congress on the status of competition in the market for the delivery of video programming.[1] Congress imposed this annual reporting requirement in the Cable Television Consumer Protection and Competition Act of 1992 ("1992 Cable Act"),[2] as one means of obtaining information on the competitive status of markets for the delivery of multichannel video programming delivery that would aid both Congress and the Commission in determining when there was competition sufficient to reduce or eliminate many of the regulatory restraints imposed on the cable industry by that legislation.[3] This is the Commission's third annual report (*"1996 Report"*) to Congress submitted in compliance with this statutory requirement.[4] In this *1996 Report*, we update our two prior reports and provide data and information that summarizes the status of competition in the market for the delivery of video programming. In the two prior reports we described the methodology and theory underlying our competitive analysis. We do not repeat that information in this report other than in an abbreviated fashion, and provide reference to the relevant discussion in prior reports. The information and analysis provided in this third report are based on publicly available data, filings in various Commission rulemaking proceedings, and information submitted by commenters in response to a *Notice of Inquiry* (*"Notice"*) in this docket.[5]

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[1] Communications Act of 1934, as amended, § 628(g), 47 U.S.C. § 548(g) (1996) ("Communications Act").

[2] Pub. L. No. 102-385, 106 Stat. 1460 (1992).

[3] The 1992 Cable Act imposed a regulatory scheme on the cable industry designed to serve as a transitional mechanism until competition develops and consumers have adequate multichannel video programming alternatives. *Implementation of Section 19 of the Cable Television Consumer Protection and Competition Act of 1992 (Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming)*, CS Dkt. No. 94-48, Notice of Inquiry, 9 FCC Rcd 2896 ¶ 2 (1994). The 1992 Cable Act also requires the Commission to publish an annual statistical report on the average rates for cable programming service and for converter boxes, remote control units, and other equipment provided by cable systems. Pursuant to Section 623(k) of the Communications Act, 47 U.S.C. § 543(k), that report must compare the rates charged by cable systems that are subject to effective competition with those not subject to effective competition. In a separate proceeding, the Commission is obtaining information for the required comparisons of cable rates. *See Implementation of Section of the Cable Television Consumer Protection and Competition Act of 1992, Rate Regulation,* MM Dkt. No. 92-266, Order, 10 FCC Rcd 13200 (1995).

[4] The Commission's first two reports appear at: *Implementation of Section 19 of the 1992 Cable Act (Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming),* CS Dkt. No. 94-48, First Report, 9 FCC Rcd 7442 (1994) (*"1994 Report"*) and *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming,* CS Dkt. No. 95-61, Second Annual Report, 11 FCC Rcd 2060 (1996) (*"1995 Report"*).

[5] *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Dkt. No. 96-133, Notice of Inquiry, 11 FCC Rcd 7413 (1996).

A. Scope of this Report

2. Section II of this report contains a brief review of the Telecommunications Act of 1996 ("1996 Act").[6] In Section III we examine the cable television industry, existing multichannel video programming distributors ("MVPDs") and distribution technologies, and potential competitors to cable television. Among the alternative distribution technologies and providers discussed are direct broadcast satellite ("DBS") services and home satellite dishes ("HSDs"), wireless cable systems using frequencies in the multichannel multipoint distribution service ("MMDS") or local multipoint distribution service ("LMDS"), local exchange telephone carriers ("LECs"), satellite master antenna television ("SMATV") systems, and broadcast television service. We also consider several other existing and potential distributors of and distribution technologies for video programming, including electric utilities, the Internet, and interactive video and data services ("IVDS").

3. In Section IV of this *1996 Report,* we examine market structure and competition.[7] We evaluate horizontal concentration and vertical integration between cable television systems and programming services. We also discuss in this section program access and technological advances. In Section V we discuss some evidence of potential obstacles to the emergence of a freely competitive multichannel video programming distribution ("MVPD") marketplace, and evidence of competitive responses by industry players that are beginning to face competition from other MVPDs.

B. Summary of Findings

4. In this *1996 Report*, the Commission makes the following findings:

■ The 1996 Act embodies Congress' intent to promote a "pro-competitive national policy framework" and eventual deregulation of markets for the delivery of video programming. Several of the 1996 Act's provisions are intended to build on prior efforts, particularly the 1992 Cable Act, by removing additional barriers to competitive entry in these markets and establishing market conditions that promote the process of competitive rivalry. Many provisions of the 1996 Act, and the Commission's actions to implement them, have the potential for fostering increased competition. The Commission has adopted rules to implement the open video system provisions of the 1996 Act and has adopted rules to implement the 1996 Act provision which preempts certain local government and non-government restrictions on reception devices, including antennas and dishes for reception of over-the-air broadcast, wireless cable and DBS signals. The Commission has adopted similar rules with respect to certain home satellite dish services. A change in the definition of a cable system made by the 1996 Act now permits SMATV operators

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[6] Pub. L. 104-104, 110 Stat. 56 (1996).

[7] Appendix H of the *1994 Report* describes methods for assessing the status of competition in markets for the delivery of multichannel video programming. *1994 Report*, 9 FCC Rcd at 7623, App. H.

to serve buildings regardless of ownership without being subject to regulation as cable operators, provided that public rights-of-way are not used in the process.

■ We find that incumbent franchised cable systems continue to be the primary distributors of multichannel video programming, although other MVPDs, particularly those using alternative technologies (e.g., DBS, wireless cable and SMATV systems), continue to increase their share of subscribers in many markets. Subscribership for distributors using technological alternatives to traditional cable service now accounts for 11% of total MVPD subscribership. Non-cable MVPD subscribership has been increasing an average of 22% per year since 1990, with cable subscribership currently down to 89% of all MVPD subscribers. Notwithstanding this decrease in cable systems' share of total MVPD subscribers, the actual number of cable subscribers continues to increase. In fact, since the *1995 Report*, the number of cable subscribers increased by two million compared to the increase in combined subscribership for all other MVPDs of 2.3 million.

■ Local markets for the delivery of video programming generally remain highly concentrated, and structural conditions remain in place that could permit the exercise of market power by incumbent cable systems. Overall, our conclusion concerning competition in markets for the delivery of multichannel video programming remains unchanged from last year -- it remains difficult to determine to what extent these markets will be characterized over the long term by vigorous rivalry among multiple MVPDs offering closely substitutable services or, conversely, the extent to which many of these markets will remain dominated by one or two providers facing less vigorous rivalry from MVPDs offering highly-differentiated or niche programming services.

■ We find a growing but still very limited number of instances where incumbent cable system operators face competition from MVPDs offering services with very similar attributes (i.e., overbuilds/wired delivery). Where such competition exists, such as in Dover Township, New Jersey, the effects of competition are readily apparent. We also find a substantially increased presence of MVPDs deploying somewhat differentiated services, particularly DBS service providers. Increased competition among DBS service providers has led to lower equipment prices and, possibly, increases in the number of cable subscribers choosing to drop or reduce cable services in favor of DBS services. Moreover, some cable system operators appear to be taking steps to improve their service offerings in response to the availablity of DBS service. MVPDs using other distribution technologies, such as MMDS, have not posted comparable increases in subscribership, but are in the process of testing digital technology that has the potential to significantly improve the competitiveness of their services. Consequently, it remains difficult to predict the extent to which competition from MVPDs using non-cable delivery technologies will constrain cable systems' ability to exercise market power in the future.

■ As a result of acquisitions and trades, cable multiple system operators ("MSOs") have continued to increase the extent to which their systems form regional clusters. The number of clusters of systems serving at least 100,000 subscribers increased from 97 to 137, and these clustered systems now account for service to approximately 50% of the nation's cable subscribers.

- Nationally, concentration among the top cable MSOs has continued to increase, but still remains within the moderately concentrated range at 1326 (an Herfindahl-Hirschman Index ("HHI") between 1000 and 1800). If all MVPDs are included in the calculation, national concentration falls just above the threshold of the moderately concentrated range with an HHI of 1013. DBS providers DIRECTV and PRIMESTAR rank among the ten largest MVPDs in terms of nationwide subscribership with over 2.0 and 1.5 million subscribers, respectively.

- Vertical integration of national programming services between cable operators and programmers declined from last year's total of 51% to just 44% this year. We find, however, insufficient evidence to make any determination of the effect to date of these developments. The decline is due largely to the sale of Viacom's cable system assets. In addition, of the 16 programming services that were launched since the *1995 Report*, 10 are not vertically integrated. Access to programming remains one of the most critical factors for the successful development of competitive MVPDs. Competing MVPDs have complained about the potential unavailability of programming distributed by means other than satellite or produced by programmers that are not vertically integrated with cable systems. To the extent that it appears that the denial of access to programming serves to deter entry of competitors in markets for the delivery of video programming, we will be concerned about these developments.

- Technological advances are occurring that will permit MVPDs to increase both quantity of service (i.e., an increased number of channels using the same amount of bandwidth or spectrum space) and types of offerings (e.g., interactive services). MVPDs continue to pursue new system architectures, upgraded facilities, use of increased bandwidth and deployment of digital technology.

- Our findings as to particular distribution mechanisms operating in markets for the delivery of video programming include the following:

  - Cable Systems: The cable industry has continued to grow in terms of subscriber penetration, average system channel capacity, the number of programming services available, revenues, audience ratings and expenditures on programming since the *1995 Report*.

  - DBS Service Providers: Subscribership to DBS services increased from 1.7 million homes last year to nearly 4 million homes at the end of October 1996. This increase is attributable in part to the development of competition from two new DBS services in the last year -- AlphaStar and EchoStar -- and price competition among providers that has significantly lowered the cost of receiving equipment.

  - Wireless Cable Systems: Although wireless cable systems showed some growth in subscribership, the most significant development in 1996 was MMDS systems' preparation for the deployment of digital systems in 1997. This will increase the number of channels that MMDS systems can offer and permit them to be more competitive with incumbent cable systems. Throughout most of the year, LECs continued to expand their investment in the wireless industry,

but some have recently cut back on that investment. We also observe a continuation of the trend toward increased consolidation among wireless companies.

- SMATV Systems: SMATV subscribership increased 10.5% over the past year in systems that serve MDUs. Industry analysts attribute the growth, among other things, to technical improvements that increased operating efficiencies and to expanded product offerings, i.e., security features and diverse programming.

- Broadcast TV: Broadcast service continues to serve as both a transmission medium for many households, and a primary source of programming for most viewers regardless of distribution media. Regulatory changes and technological advances may, at some point in the future, permit the use of broadcast television and other existing and potential video technologies, such as low power television, for distribution of multichannel video programming.

- LEC Entry: The 1996 Act expands opportunities for LECs to enter markets for the delivery of multichannel video programming. Since adopting rules implementing the 1996 Act's open video system ("OVS") provision, we have certified the conversion of Bell Atlantic's Dover, New Jersey, video dialtone system to an OVS and authorized two additional OVS operators. In the last year, some LECs have continued to expand franchised cable operations, both within and outside their telephone service areas.

- Utilities: Section 103 of the 1996 Act removes regulatory barriers to entry in telecommunications and video markets for "registered" public utility holding companies. On September 12, 1996, the Commission adopted final rules to implement Section 103, and, to date, has granted all 18 applications filed thus far under the 1996 Act.

II. THE TELECOMMUNICATIONS ACT OF 1996

5. The Telecommunications Act of 1996, enacted February 8, 1996, marks a fundamental shift toward competition throughout the entire telecommunications marketplace. Congress specifically stated its intent to establish a "pro-competitive de-regulatory national policy framework" for the telecommunications industry.[8] Consistent with this philosophy, the 1996 Act contains several provisions that focus on removing barriers to competitive entry and on establishing market conditions that promote competitive firm rivalry. In addition to encouraging competition in the local telephone exchange market, the 1996 Act also encourages competition in the market for the delivery of multichannel video programming.

6. Eliminating a significant statutory barrier to entry, the 1996 Act removes the statutory provision that prevented local telephone companies from providing video programming

[8] H. R. Rep. No. 104-458, 104th Cong. 2d Sess. 1 (1996) ("Conference Report").

services directly to subscribers in their telephone service areas.[9] The 1996 Act also directs the Commission to eliminate all of its video dialtone rules and attendant policies, and to eliminate the requirement that a common carrier obtain authorization pursuant to Section 214 of the Communications Act for the provision of video programming.[10] In place of these provisions, the 1996 Act provides for a new "open video system" or "OVS" framework for the provision by telephone companies and others of multichannel video programming.[11] The Commission has promulgated rules pursuant to this new statutory provision,[12] including extending the program access requirements to common carriers providing video programming pursuant to Section 302(b)(1)(A) of the 1996 Act.[13]

7. Several other provisions of the 1996 Act focus on eliminating regulatory barriers to entry into markets for the delivery of video programming. For example, pursuant to Section 207 of the 1996 Act, the Commission has implemented rules preempting certain local government and non-government restrictions on reception devices, including antennas for reception of over-the-air broadcast, wireless cable, and DBS.[14] Section 301(a)(2) of the 1996 Act redefined the statutory exceptions to a cable system so as to permit more efficient operation by SMATV operators.[15] Pursuant to Section 202(f)(1) of the 1996 Act, the Commission has revised Section

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[9] 1996 Act, sec. 302(b)(1).

[10] 1996 Act, secs. 302(a), 302(b)(3) (codified as Communications Act § 651(c), 47 U.S.C. § 571(c)).

[11] 1996 Act, sec. 302 (codified as Communications Act § 651, 47 U.S.C. § 571).

[12] *Implementation of Section 302 of the Telecommunications Act of 1996 (Open Video Systems)*, CS Dkt. No. 96-46, Report and Order and Notice of Proposed Rulemaking, 11 FCC Rcd 14639 (1996); *Implementation of Section 302 of the Telecommunications Act of 1996 (Open Video Systems)*, CS Dkt. No. 94-46, Second Report and Order, 11 FCC Rcd ___, FCC 96-249 (June 3, 1996), *("Second OVS Report & Order") summarized at* 61 Fed. Reg. 28698 (June 5, 1996); *Implementation of Section 302 of the Telecommunications Act of 1996 (Open Video Systems)*, CS Dkt. No. 94-46, Third Report & Order and Second Order on Reconsideration, 11 FCC Rcd ___, FCC 96-334 (Aug. 8, 1996) *summarized at* 61 Fed. Reg. 43160 (Aug. 21, 1996).

[13] 47 C.F.R. §§ 76.1000 et al; 1996 Act sec. 302 (codified as Communications Act § 653(b)(1)(A), 47 U.S.C. § 573(b)(1)(A)). *See Second OVS Report & Order*, FCC 96-249 ¶¶ 133-204.

[14] 1996 Act, sec. 207; *Preemption of Local Zoning Regulations of Satellite Earth Stations*, IB Dkt. No. 95-59, Report & Order, Memorandum Opinion & Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd ___, FCC 96-328 (Aug. 6, 1996), *summarized at* 61 Fed. Reg. 46557 (Sept. 4, 1996). In addition, Section 205 of the 1996 Act grants exclusive jurisdiction to the Commission to regulate the provision of direct-to-home satellite services. 1996 Act, sec. 205(b) (codified as Communications Act § 303(v), 47 U.S.C. § 303(v)).

[15] 1996 Act, sec. 301(a)(2) (codified as Communications Act § 602(7), 47 U.S.C. § 22(7)). The redefinition effectively eliminated the commonly owned building requirement for a SMATV system serving multiple buildings. This redefinition was recommended in the *1994 Report*, 9 FCC Rcd at 7558 ¶ 252.

76.501 of the rules to permit the common ownership of a cable system and a broadcast television network.[16]

8. In addition to removing statutory and regulatory barriers to competition among actual and potential MVPDs, the 1996 Act also contains a number of provisions that directly affect competition in the cable industry. For example, Section 304 of the 1996 Act contains provisions affecting cable system operators, such as multiple dwelling unit ("MDU") bulk discounts and uniform rate structure rules.[17] Section 301(c) of the 1996 Act contains immediately effective deregulatory provisions for small cable system operators and Section 301(b) of the 1996 Act contains deregulatory provisions for large cable system operators that take effect within three years of enactment of the 1996 Act.[18] In addition, Section 301(b)(3) of the 1996 Act broadens the definition of effective competition so as to increase the ability of cable operators to assert the existence of effective competition and avoid rate regulation.[19] Section 301(f) of the 1996 Act, addressing cable equipment compatibility, provides for narrowly drawn compatibility requirements that do not adversely affect the features, functions, protocols or other products and services options of such equipment other than those specifically specified in the equipment compatibility requirement.[20]

9. The 1996 Act also contains provisions to encourage open competition in MVPD equipment markets. Section 304 of the 1996 Act tasks the Commission with adopting regulations to assure the commercial availability of converter boxes, interactive communications equipment and other equipment used by consumers to access multichannel video programming services.[21] The 1996 Act also provides for the sunset of these provisions when the Commission determines: (1) the market for MVPDs is fully competitive; (2) the market for converter boxes and interactive communications equipment is fully competitive; and (3) elimination of the regulations would promote competition and the public interest.[22]

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[16] 1996 Act, sec. 202(f)(1); *Implementation of Sections 202(f), 202(i) and 301(i) of the Telecommunications Act of 1996, Cable Television Antitrafficking, Network Television, and MMDS/SMATV Cross-Ownership Rules*, CS Dkt. No. 96-56, Order, 11 FCC Rcd 15115 (1996).

[17] 1996 Act, sec. 301 (codified as Communications Act § 623, 47 U.S.C. § 543(m)).

[18] 1996 Act, sec. 301(b) (codified as Communications Act § 623(m), 47 U.S.C. § 543(m)).

[19] 1996 Act, sec. 301(b)(3) (codified as Communications Act § 623(l), 47 U.S.C. § 543(l)).

[20] 1996 Act, sec. 301(f) (codified as Communications Act § 624(A), 47 U.S.C. § 544a).

[21] 1996 Act, sec. 304 (codified as Communications Act § 629, 47 U.S.C. § 549).

[22] 1996 Act, sec. 304 (codified as Communications Act § 629(e), 47 U.S.C. § 549(e)). *See also Implementation of the Cable Television and Consumer Protection and Competition Act of 1992 (Cable Home Wiring)*, MM Dkt. No. 92-260, First Order on Reconsideration and Further Notice of Proposed Rulemaking, 11 FCC Rcd 4561 (1996); *Telecommunications Services Inside Wiring (Customer Premises Equipment)*, CS Dkt. No. 95-184, Notice of Proposed Rulemaking, 11 FCC Rcd 2747 (1996).

10. Finally, we note there are additional provisions aimed at encouraging market entry. Pursuant to Section 101 of the 1996 Act, the Commission has instituted a proceeding to identify and eliminate market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services.[23] Pursuant to Section 103 of the 1996 Act, the Commission established rules that enable public utility holding companies to enter into telecommunications markets and has approved exempt telecommunications company status for 18 companies.[24]

III. COMPETITORS IN MARKETS FOR THE DELIVERY OF VIDEO PROGRAMMING

A. Cable Industry

11. This section addressing the performance of franchised cable system operators[25] is divided into three categories: (1) general performance -- both quantitative measures of the current amount of cable industry services that are being produced and qualitative measures of the nature of the service; (2) financial performance -- the revenues and cash flow that are generated by the industry's general performance; and (3) capital acquisition and disposition -- the amount of funds that companies have been able to raise and use to improve their existing physical plant and acquire new systems,[26] and how they have chosen to allocate those funds. In addition, this section reports on the status of overbuilding, one of the first forms of competition to the cable industry. The term "overbuild" refers to a situation in which two or more wireline cable television systems directly compete for subscribers in a local video programming delivery market.[27]

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[23] 1996 Act, sec. 101 (codified as Communications Act § 257, 47 U.S.C. § 257); *Section 257 Proceeding to Identify and Eliminate Market Entry Barriers for Small Businesses*, GN Dkt. No. 96-113, Notice of Inquiry, 11 FCC Rcd 6280 (1996).

[24] 1996 Act, sec. 103 (codified as Public Utility Holding Company Act of 1935 § 34, 15 U.S.C. §79z-5c); *Implementation of Section 34(a)(1) of the Public Utility Holding Company Act of 1935, as added by Section 103 of the Telecommunications Act of 1996*, GC Dkt. No. 96-101, Report & Order, 11 FCC Rcd 11377 (1996).

[25] A franchise is defined as an authorization supplied by a federal, state, or local government entity to own or construct a cable system in a specific area. Communications Act §§ 602(9), 602(10), 47 U.S.C. §§ 522(9), 522(10). A cable system operator is defined as "any person or group or persons (1) who provides cable service over a cable system and directly or through one or more affiliates owns a significant interest in such cable system; or (2) who otherwise controls or is responsible for, through any arrangement, the management and operation of such a cable system." 47 C.F.R. §76.6(cc).

[26] The consolidation in the cable industry brought about by these transactions is discussed below. *Infra* sec. IV.A.

[27] *1995 Report*, 11 FCC Rcd at 2075 ¶ 36.

1. General Performance

12. During 1996, the cable industry's total basic subscribership, total homes passed, basic penetration, and premium channel subscriptions have reached all-time highs. The industry is also offering more channels, a greater number of individual program services than at any time in the past, and higher audience levels.

13. *Cable Industry Capacity and Subscribership.* Since release of the *1995 Report*, the cable industry has continued to expand. The number of homes capable of receiving service from a cable system (commonly referred to as homes passed) grew from approximately 91.6 million at the end of 1994 to approximately 92.7 million at the end of 1995, a 1.2% increase.[28] Thus, at year end 1995, cable service was available to 96.7% of all television households in the United States.

14. Subscribership grew from a total of 59.7 million at the end of 1994 to 62.1 million at the end of 1995, a 4.0% increase. This increase is reflected in the industry's basic cable penetration level, which rose by 2.8% -- from 65.2% to 67.0% of homes passed.[29] This increase in penetration is the second largest annual increase since 1977.[30] According to at least one analyst, industry subscribership appears to be growing at approximately a 3% growth rate during 1996.[31]

15. The total number of subscriptions to premium channels grew by 6.1% from approximately 51.1 million at the end of 1994 to approximately 54.2 million at the end of 1995. The number of homes subscribing to at least one premium channel was approximately 28.1 million in 1994.[32] No estimates of this statistic are available for 1995 at this time.

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[28] *Infra* App. B, Tbl. 1. (Tables 2-10 referred to in this section are included in Appendix B.)

[29] These figures differ from the results reported by A.C. Nielsen, Inc., which indicate that cable penetration grew from 64.0% to 65.9% between February 1995 and February 1996. *Compare* National Cable Television Assoc., *Current Estimates*, Cable Television Developments, Spring 1995, at 1, *with* National Cable Television Assoc., *Current Estimates*, Cable Television Developments, Spring 1996, at 1. This discrepancy may be explained by the use of different data collection processes. Wherever possible, we have chosen to perform our own analysis using data contained in documents filed by Multiple System Operators (MSOs) with the Securities and Exchange Commission ("SEC"). Where SEC information is not available, we use estimates produced by Paul Kagan Associates, Inc., which uses SEC filings for its subscribership projections.

[30] *Infra* App. B, Tbl. 1. The largest annual percent increase in recent years occurred in 1994 when penetration increased by 3.3% from 63.1% to 65.2%. *See 1995 Report*, 11 FCC Rcd at 2068 ¶14.

[31] Merrill Lynch, *Cable Industry, Valuation Update: A Dose of Reality*, Sept. 10, 1996, at 2.

[32] *Infra* App. B, Tbl. 2.

16. *Cable Industry Services.* During 1995, both the number of systems with large channel capacity and the number of subscribers served by such systems continued to increase. In 1994, cable systems with the capacity to offer 30 or more channels accounted for over 78% of all cable systems. The equivalent figure for 1995 was 79.4%.[33] As a result of upgrades over the last year, 123 more systems, or 14% of all systems, now offer 54 or more channels. The percentage of all systems which offered 12 or fewer channels declined from 6.7% in 1994 to 5.4% in 1995.[34]

17. During 1995, the number of subscribers served by high capacity systems (54 or more channels) grew to 27.7 million (47.9% of all subscribers). This represents growth of 20.3% over the 23 million subscribers recorded in 1994.[35] Moreover, the number of subscribers receiving service from systems with at least 30 channels rose 4.6% to 56.3 million at the end of 1995, which accounted for 97.3% of all subscribers.[36]

18. Over the past decade, the number of television viewing hours of non-premium cable programming networks has grown. Comparing the 1984-85 and 1994-95 seasons, the combined, full-day audience of cable networks increased from an 11% share to a 30% share of television viewing hours.[37] Comparing the same two periods, the combined audience of the network-affiliated, independent, and public broadcast television stations has decreased from an 87% share to a 72% share of television viewing hours.[38] This growth in the viewership of the cable networks has continued into the 1996/1997 season. The total prime time share of the cable networks for the first week of the 1996/1997 television season increased 11.1% over the first week of the 1995/1996 season to 30% of television viewing hours.[39] A comparison of the same two periods shows that the four largest broadcast networks had their total prime time share decrease by 5.8% to 65% of viewing households.[40]

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[33] *Infra* App. B, Tbl. 3.

[34] *Id.*

[35] *Infra* App. B, Tbl. 4.

[36] *Id.*

[37] National Cable Television Assoc., *Viewing Shares: Broadcast Years 1983/1984-1994/1995*, Cable Television Developments, Spring 1996, at 5. The share is the percentage of television households watching the networks. The sum of reported audience shares exceeds 100% due to multiple set viewing.

[38] *Id.*

[39] Richard Katz, *Like a Hurricane*, Multichannel News, Sept. 30, 1996, at 1.

[40] *Id.*

19. License fees paid by cable system operators to non-premium cable network programmers increased by 19% from approximately $2.233 billion in 1994 to approximately $2.658 billion in 1995.[41] License fees paid by cable system operators to premium cable network programmers increased by 2.1% from $1.9 billion in 1994 to $1.94 billion in 1995.[42] Copyright fees paid by cable system operators for broadcast signal carriage under Section 111 of the Copyright Act increased 2.2% from $161 million in 1994 to $164 million in 1995.[43]

20. *Consumer Satisfaction.* In March 1995, the cable industry, through the National Cable Television Association ("NCTA"), launched a new on-time guarantee program to improve consumer satisfaction. Under this program, operators promise that: (1) if an installation appointment is not performed on time, the installation will be done for free, and (2) if a service appointment is not performed on time, the customer will receive a $20 refund.[44] According to NCTA, this program has been adopted by cable systems serving 25 million subscribers.[45] This year, NCTA reports that the on-time performance of individual MSOs participating in the program has ranged between 76% and 99%.[46]

2. Financial Performance

21. The supply and demand statistics described above provide an important indicator of the state of the cable industry. However, these statistics alone do not reveal how the subscribership changes have influenced the industry's financial health. This section examines revenue and cash flow for the cable industry and shows that in 1995 these two key financial indicators performed well.

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[41] Paul Kagan Assocs., Inc., *Economics of Basic Network Programming (1992-1997)*, Cable TV Programming, Sept. 30, 1996, at 1. This increase may be attributed to one or more factors, including: (1) increases in subscribers; (2) increases in channels exhibiting additional programming; and (3) increases in program fees. While some observers attribute the increase in license payments primarily to progammers' increasing rates, Price Colman, *War Looms Over Program Prices,* Broadcasting & Cable, Dec. 16, 1996, at 11, the relative contribution of each factor remains unclear.

[42] Veronis, Suhler & Associates, *The Veronis, Suhler & Associates Communications Industry Forecast* 158 (1996).

[43] Library of Congress, Copyright Office, *Licensing Division Report of Receipts*, Oct. 18, 1996. The actual fees for 1994 were $160,551,156.90 and for 1995 were $164,119,044.68. *Id.*

[44] National Cable Television Assoc., *The Future Is On Cable: Establishing Cable as a Telecommunications Leader, Progress Report,* Spring 1995, at 3 (Preliminary On-Time Guarantee Statistics).

[45] *Id.*

[46] National Cable Television Assoc., *The Future Is On Cable Public Affairs Program and Related Initiatives: A Summary of Activities from December 1994 - April 1996*, at 2 (Report on Cable Industry Participation).

22. *Cable Industry Revenue.* Financial analysts who follow the cable industry report that after showing slight growth in 1994,[47] the industry's revenue increased by 10.8% in 1995, growing from $22.79 billion to $25.1 billion.[48] Using these figures, it is estimated that the cable industry generated $411.90 in annual revenue per subscriber served in 1995. This figure is $22 higher than the $389.50 annual revenue per subscriber generated in 1994. When total cable system revenue is broken down by source, between 1994 and 1995, it is estimated that: MSO revenue from regulated tiers (referred to by the Commission as the basic service and cable programming service tiers) increased by 11.1%; MSO revenue from premium services increased by 12%; and MSO revenue from advertising, pay-per-view, and home shopping grew 18.9%, 68.0%, and 13.4% respectively.[49]

23. For purposes of this report, the Commission calculated its own estimates of the annual, industry-wide total revenues from 1992 to 1995.[50] Based on these estimates, it appears that the industry generated revenue of over $21.07 billion in 1992, $22.59 billion in 1993, $23.09 billion in 1994, and $24.46 billion in 1995.[51] Based on the Commission's estimates, the industry's annual revenue increased 6.0% from 1994 to 1995.

24. In Table 8A of Appendix B, we present detailed, quarterly revenue results for 14 publicly held MSOs, including the eight largest. For each quarter of 1994, 1995, and the first two quarters of 1996, total revenue growth over the same quarters of the previous year is calculated for these MSOs based on their filings with the Securities and Exchange Commission ("SEC"). As of December 31, 1995, these 14 MSOs served over 66.9% of the industry's 62.1 million subscribers. Based on their combined revenues, an estimate of the total industry revenue was made for each quarter and is also presented in Table 8A.

25. Revenue increased in each quarter of 1995 and showed increases over the equivalent quarters in 1994. The industry generated 2.9% more revenue in the first quarter of

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[47] *1995 Report*, 11 FCC Rcd at 2070 ¶ 23.

[48] *Infra* App. B, Tbl. 6.

[49] *Infra* App. B, Tbl. 6.

[50] The Commission arrived at its estimate of industry-wide revenue and cash flow by analyzing and extrapolating from publicly available information for over 60 cable MSOs, which served a combined 77.5% of the industry's subscribers at the end of 1994. To the extent there are significant differences between the average financial performance of these large MSOs and smaller MSOs, those differences may affect the reliability of industry-wide estimates. The methodology used to calculate these estimates as well as the quarterly estimates discussed below is outlined in Appendix B.

[51] *Infra* App. B, Tbl. 7. These estimates differ from those released in the *1995 Report*. The differences are due in part to the deletion this year of subscribers attributable to partially held and foreign subsidiaries. Other differences are due to the Commission having been able to collect additional data since last year's report, allowing more accurate estimates.

1995 than in the first quarter of 1994; 4.5% more in the second quarter; 8.1% more in the third quarter; and 10.6% more in the fourth quarter. While this trend continued into the first quarter of 1996 (when revenue growth was 11.4% over the first quarter of 1995), the pace slowed slightly in the second quarter, with industry revenues 9.9% higher than in the second quarter of 1995.[52]

26. *Cable Industry Expenditures and Earnings Before Interest, Taxes, Depreciation, and Amortization.* Measurements of earnings before interest, taxes, depreciation, and amortization ("EBITDA"), commonly referred to as "cash flow" by the industry, are often used to value the financial position of cable firms. Financial analysts who follow the cable industry report that after declining by 1.6% to $9.94 billion in 1994, industry wide cash flow increased 13.1% in 1995 to $11.2 billion.[53] Using these figures, the cable industry generated approximately $184.53 in annual cash flow per subscriber served in 1995, about $15 higher than the $169.85 generated in 1994. Based on these estimates, the ratio of cash flow to revenue ("cash flow margin") increased from 43.6% in 1994 to 44.8% in 1995.[54]

27. For purposes of this report, the Commission has also calculated an estimate of annual, industry-wide cash flows from 1992 to 1995.[55] Based on Commission estimates, the industry generated cash flow of $9.72 billion in 1992, $10.31 billion in 1993, $10.05 billion in 1994, and $10.63 billion in 1995.[56] The Commission's 1995 estimate represents a cash flow increase of 5.7% from 1994.

28. An analysis of the industry's cash flow for any one year may not provide a complete picture of the trend in the industry's performance. A more informed analysis may be provided by comparing each quarter of 1994, 1995, and the first two quarters of 1996, with the same quarters of the previous year. These quarterly growth rates are shown in Appendix B, Table 8B. As in Appendix B, Table 8A, we present detailed quarterly cash flow for the same 14 publicly held MSOs. After exhibiting slow year-over-year cash flow growth in the first two

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[52] As of Mid-November, the top five MSO stocks, TCI, Continental, Time Warner, Comcast and Cox, were on average down 6 points from the Standard & Poor's Index. *See StockMaster Quotes & Charts*, http://www.stockmaster.com. Some financial analysts have attributed this decline to increased competition and the amount of debt cable companies have incurred in order to upgrade their systems. Paul Farhi, *Waiting to be Wired*, Wash. Post, Nov. 3, 1996, at H1; Diane Mermigas, *Cable Stocks Tumble as Dow Soars Over 6,000*, Electronic Media, Oct. 28, 1996, at 16.

[53] Paul Kagan Assoc., Inc., *Estimated Capital Flows In Cable TV*, The Cable TV Financial Databook, July 1996, at 115; *see also 1995 Report*, 11 FCC Rcd at 2071 ¶ 27.

[54] *Infra* App. D, Tbl. 6. Cash flow margin is a commonly used financial analysis tool for determining an MSOs' operating efficiency, profitability, and liquidity.

[55] Cash flow estimates are based on the same methodology described *supra* note 50.

[56] *Infra* App. B, Tbl. 7.

quarters of 1995 (2.1% and 1.5% respectively), year-over-year cash flow growth was much stronger in the third and fourth quarters of 1995 (10.1% and 9.4% respectively). In the first two quarters of 1996, year-over-year cash flow growth slowed to 5.6% and 8.0% respectively.

3. Capital Acquisition and Disposition

29. In 1995, the cable industry displayed an increased ability to acquire financing from a variety of public and private sources. The industry also made some of the most substantial capital investments ever. In recent months, however, there have been reports that some cable operators have been having difficulty financing the significant capital investments that they had been planning to make. For example, on October 24, 1996, TCI president John Malone was reported to have said that "[t]he days of heavy capital spending on cable are behind us" during a presentation to institutional investors at which he explained TCI's plans to cut back on system upgrades in its systems that are small or less-threatened competitively.[57]

30. *Cable Industry Financing in 1995:* The cable industry has typically relied on various combinations of private and public financing, with the exact distribution of these combinations varying greatly from year to year. Redemptions caused private debt financing (i.e., debt held by banks, insurance companies, and institutional investors) to decrease by $808 million in 1995, while public debt financing increased by $4.5 billion.[58] The remaining industry financing is obtained through a mixture of private equity (i.e., individuals, venture capital firms, investment banks, limited partnerships) and public equity offerings (i.e., stock markets). New private and public equity offerings totalled $1.1 billion and $4 billion, respectively, in 1995. Overall, the cable industry obtained $8.8 billion in new financing in 1995, which is an increase of $2.1 billion over the 1994 total.[59] This growth in new financing during 1995 helped increase combined cash flow and new investment to the highest level ever. The $20 billion total combined figure in 1995 ($11.2 billion from cash flow plus $8.8 billion from new financing) was an increase of 20.1% over the $16.7 billion reported in 1994.[60]

31. *Cable Industry Financing: Recent Developments.* The cable industry appears to be on a pace that will result in it obtaining significantly less in new capital in 1996 than in prior years. Cable operators are reported to have raised approximately $1.6 billion in capital during

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[57] *E.g.*, John M. Higgins, *Malone Reveals More Details on Revival Plan*, Multichannel News, Nov. 11, 1996, at 3, 70. *See also* John M. Higgins & Leslie Ellis, *TCI's Woes Rock Market*, Multichannel News, Oct. 28, 1996, at 1; Eben Shapiro & David D. Kirkpatrick, *TCI's Malone Unveils Strategy to Storm Digital-Satellite Firms,Cut Spending,* Wall St. J., Oct. 28, 1996, at B6.

[58] *Infra* App. B, Tbl. 10.

[59] *Id.*

[60] Paul Kagan Assoc., Inc., *Estimated Capital Flows In Cable TV*, The Cable TV Financial Databook, July 1996, at 115.

the first half of 1996.[61] Included in this total was a net redemption of $1.6 billion of privately held debt;[62] $2.6 billion raised in the bond market;[63] and $626 million raised in the public equity market.[64] If the industry continues to obtain new financing at this rate, it will raise a total of $3.2 billion in new financing for 1996, which is less than 45% of 1995's total.

32. *Capital Expenditures.* In 1995, the cable industry invested $5.4 billion in construction of new plant and equipment (including maintenance, inventory, system upgrades, converters, passing of new homes, and rebuilding of existing systems). This was a 42% increase over the $3.8 billion spent on construction in 1994.[65] This also represents the third consecutive year that cable industry capital expenditures experienced double-digit growth.[66] Of the $5.4 billion in capital expenditures, the industry spent $3.4 billion on the upgrade and build-out of existing systems. Approximately $1 billion was spent on new set-top converters and other inventory.[67] In contrast, it was recently reported that TCI is going to reverse this pattern, and will begin spending more on set-top converters and less on system upgrades over the next few years.[68]

33. *Cable System Transactions.* The number of mergers, acquisitions, and exchanges between MSOs increased from 64 in 1994 to 128 in 1995.[69] The information for 1995 also marks a change in the seven year trend reported in prior reports that while total number of subscribers served by systems sold increased, the number of systems sold declined.[70] This past year, the number of subscribers to, and homes passed by, the systems changing hands in these transactions

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[61] Paul Kagan Assocs., Inc., Cable TV Finance, Sept. 16, 1996, at 1; Paul Kagan Assocs., Inc., *Cable TV Financing Snapshot -- July*, Cable TV Finance, Aug. 30, 1996, at 6.

[62] Paul Kagan Assocs., Inc., Cable TV Finance, Sept. 16, 1996, at 1.

[63] *Id.*

[64] Paul Kagan Assocs., Inc., *Cable TV Financing Snapshot -- July*, Cable TV Finance, Aug. 30, 1996, at 6.

[65] Paul Kagan Assoc., Inc., *Estimated Capital Flows In Cable TV*, The Cable TV Financial Databook, July 1995, at 92; Paul Kagan Assoc., Inc., *Estimated Capital Flows In Cable TV*, The Cable TV Financial Databook, July 1996, at 115.

[66] Between 1992 and 1994, cable industry investment in construction of new plant and equipment increased 36% and 27% respectively, from $2.2 billion in 1992 to $3 billion in 1993, to $3.8 billion in 1994. *1995 Report*, 11 FCC Rcd at 2073 ¶ 33; *1994 Report*, 9 FCC Rcd at 2071 ¶ 26.

[67] Paul Kagan Assoc., Inc., *Estimated Capital Flows In Cable TV*, The Cable TV Financial Databook, July 1996, at 115.

[68] Higgins, *Malone Reveals More Details, supra*; Shapiro & Kirkpatrick, *TCI's Malone Unveils Strategy, supra.*

[69] *Infra* App. B, Tbl. 10. Transactions announced since 1995 are listed in Appendix F.

[70] *See 1995 Report*, 11 FCC Rcd at 2074 ¶ 34.

both increased, by 46% and 38%, respectively. In addition, the total dollar value of the transactions increased 43% between 1994 and 1995. Consistent with the trend begun in 1994, however, the average dollar value per subscriber of these transactions decreased, in 1995 by 1.8% (from $1,869 to $1,836) and the average cash flow multiple decreased, in 1995 by 5.8% (from 10.3 to 9.7). Overall, the transactions announced in 1995 involved more subscribers and higher purchase prices than in any year since 1982.[71]

34. For the nine months from January to September of 1996, 81 transactions were announced, involving 7.5 million subscribers, 12.1 million homes passed, and purchase prices totaling $15.6 billion dollars (which represents $2,078 per subscriber).[72] While these totals all represent decreases over the first nine months of 1995, it is worth noting that this year's transactions, on average, have been much larger than those announced last year. Moreover, the price per subscribers is, on average, much higher thus far in 1996 than it was in 1995 ($2,078 versus $1,836).[73] These results, however, appear to be largely the result of a single transaction, U S West Media Group's ("U S West") purchase of Continental Cablevision.[74]

4. Status of Overbuilding

35. Finally, as we noted above, overbuilding was one of the first competitive situations experienced by incumbent cable operators. Since the *1995 Report*, the development of new overbuilds by non-LEC entities continues to be limited.[75] We are aware of only two new such non-LEC overbuilding plans. In the last year, the city of Raleigh, North Carolina, granted Fiber South a franchise to overbuild its incumbent operator, Time Warner.[76] In addition, the city of Chicago, Illinois, granted 21st Century Cable TV a franchise to overbuild parts of the city encompassing 270,000 homes.[77]

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[71] Paul Kagan Assocs., Inc., *Year-To-Date Cable System Sale Summary*, Cable TV Investor, Jan. 26, 1996, at 11.

[72] *Infra* App. B, Tbl. 10.

[73] *Id.*

[74] Paul Kagan Assocs, Inc., *Continental Blinks to Get Deal Done*, Cable TV Investor, Oct. 21, 1996, at 3; *Announced/Proposed Cable System Sales*, Cable TV Investor, Feb. 29, 1996, at 10; U S West Media Group, *U S West Media Group and Continental Cablevision Close Merger* (news release), U S West Media Group, Nov. 15, 1996, at 2. The price per subscriber of U S West's purchase of Continental Cablevision was $2,190. *Infra* App. F.

[75] For a discussion of LEC overbuilds, *see infra* sec. III.E.

[76] *Local and State Actions*, Warren Cable Regulation Monitor, Aug. 19, 1996.

[77] Harry A. Jessel, *21st Century Comes to Chicago*, Broadcasting & Cable, Apr. 1, 1996, at 44; Michael Gillis, *Cable Companies Plan for Lakefront Battle*, Chicago Sun-Times, Apr. 1, 1996, at 14; Lee Hall, *TCI Chicago Braces for Cable Competitor; 21st Century Expects Speedy Start*, Electronic Media, Apr. 1, 1996, at 32.

B. Direct Broadcast Satellite Services

36. Direct broadcast satellite ("DBS") operators are like other MVPDs in that they: (1) downlink programming from many different satellites pursuant to contracts with programmers; (2) package the programming into service offerings; and (3) make those service offerings available to subscribers over a proprietary facility. However, DBS services use satellites instead of broadband wires or terrestrial microwave stations to transmit their programming to subscribers. In addition, we note that DBS operators have a public interest obligation to reserve between 4% and 7% of their channel capacity for noncommercial programming.[78]

37. For the purposes of this *1996 Report*, we include Primestar Partners, L.P. ("PRIMESTAR") and AlphaStar as DBS providers even though they currently do not use high-powered Ku-band frequencies allocated for DBS service as defined under the Commission's rules. Instead, they provide programming using medium-powered Ku-band frequencies allocated pursuant to the Commission's Fixed Satellite Service. Nonetheless, PRIMESTAR's and AlphaStar's services share many of the same attributes of the multichannel video programming services offered by the other DBS operators, and it appears that consumers and industry participants view their services as close substitutes for the services of MVPDs using DBS frequencies, such as DIRECTV and EchoStar.

38. Since we issued the *1995 Report*, DBS subscribership has increased substantially, to the point that DBS systems have a higher combined subscribership than any other MVPD alternative to incumbent cable systems. As discussed below, it appears that the advent of price competition among DBS providers has contributed to the increase in DBS subscribership, with initial equipment costs dropping to as low as $199 plus installation costs. However, DBS providers continue to be unable to provide local broadcast network signals (and network programming), requiring DBS subscribers to obtain those signals over the air or through basic cable subscriptions. In addition, the first-year annual cost of DBS service remains significantly higher than for cable service[79] and, if cable joins DBS systems in the use of digital encryption, many cable systems will be able to offer substantially more programming than can be offered by DBS systems.[80] Nonetheless, most observers project continued strong growth for the DBS industry through the end of the decade. For example, two industry analysts recently projected

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[78] *Time Warner Entertainment Co., L.P. v. FCC*, 93 F.3d 957, 975-77 (D.C. Cir. 1996) (The court found that this obligation, as a condition of being allowed to use a scarce public commodity, was in the public interest by assuring public access to diverse sources of information.)

[79] *See, e.g., First Year Cost to the Satellite Consumer*, SkyREPORT, Sept. 1996, at 3 (box) (the cost of programming alone is shown as comparable to, or greater than the average annual expenditure for cable services). SkyREPORT is published by Media Business Corporation in conjunction with the Satellite Broadcasting and Communications Association.

[80] *See, e.g., infra* sec. IV.C. (technical advances section, explaining digital encryption and use of bandwidth).

that there would be a total of 13-15 million DBS households by the year 2000.[81] Another observer projects that DBS operators will account for service to over 20% of all MVPD subscribers by the year 2000.[82]

39. *Subscribership.* Subscribership to DBS services continued to increase rapidly over the past year. In the *1995 Report*, the Commission noted that, according to industry reports, nearly 1.7 million households subscribed to DBS services at the end of September 1995, an increase of approximately 1.1 million subscribers from the previous year.[83] Based on the revised total of 1.6 million households, it appears that DBS subscribership increased by approximately 2.0 million households during the twelve months between the end of September 1995 and the end of September 1996, to a total of nearly 3.6 million households.[84] As of the end of October 1996, there were 3.82 million DBS subscribers.[85]

40. Since DIRECTV and USSB began offering service in June 1994, DBS services have grown at a rate making DBS receiving equipment one of the most successful new consumer electronics product introductions in history in terms of units sold.[86] DBS subscribership is anticipated to continue to grow rapidly over the next few months, with some reports over the summer projecting that over 5 million households may be receiving DBS service by the end of 1996.[87] The DBS industry appears to have experienced somewhat slower growth in recent months, however, with DIRECTV and PRIMESTAR each revising downward their projections two times in recent months, and industry observers now projecting a year-end total of between 4.3 and 4.5 million DBS subscribers.[88] These lower projections may not necessarily indicate a slower overall growth rate. As demonstrated in the tables in the appendix to this report, monthly

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[81] John M. Higgins, *DirecTv DSS Sales Falling Short*, Multichannel News, Oct. 21, 1996, at 3.

[82] *Multichannel Futures*, SkyREPORT, Oct. 1996, at 3 (citing Dennis Liebowitz at Donaldson, Lufkin & Jenrette).

[83] *1995 Report*, 11 FCC Rcd at 2080 ¶ 49.

[84] *Infra* App. C, Tbl. 1. *See also Price Wars Boost DBS by 188,000*, SkyREPORT, Oct. 1995, at 8-9.

[85] *Id.*

[86] *E.g.*, Randy Minkoff, *Tempo Lake: Star Wars--Those Small Satellite Dishes Take the Battle for TV Viewers Into a Higher Orbit*, Chicago Tribune, Oct. 6, 1996, at __, 1996 WL 2714299; Jetcom, Inc., *Jetcom Enters Into Distribution Agreement for New DIRECTV USSB DSS Products Manufactured by Uniden*, (press release) Bus. Wire, July 24, 1996.

[87] It was reported in SkyREPORT that "[c]onsensus estimates put DBS year-end numbers at near 5.25 million . . . ." *DBS Wars Roil Video Waters*, SkyREPORT, Sept. 1996, at 1.

[88] *E.g.*, *DBS's Slow Holiday Season*, Cable World, Dec. 9, 1996, at 9, 219.

increases in DBS subscribership have fluctuated significantly.[89] In its relatively short history, the DBS industry has experienced two periods of significantly enhanced monthly increases in subscribership--October-December, 1995, and June-July, 1996, possibly due to heightened marketing during those periods.

41. *Individual DBS Service Providers.* DBS subscribers generally use relatively small dishes (18-24 inches for DIRECTV/USSB and EchoStar, and 36-39 inches for PRIMESTAR and AlphaStar) to receive the programming from the individual orbital location from which the DBS operator is transmitting the service. Both services and equipment are available to subscribers from a variety of retail outlets, including large national consumer electronics retailers. Two more DBS operators, EchoStar (18-24 inch dishes) and AlphaStar (36-39 inch dishes), initiated service since the *1995 Report* was released. Consumers may now choose DBS services from four different sources (DIRECTV and USSB are treated as a single product offering for this purpose since they are complementary products).[90]

- DIRECTV offers a high power DBS service to subscribers throughout the continental United States.[91] Subscribers receive the service using the Digital Satellite System ("DSS"), which uses an 18-inch receiving dish "sold under the RCA, SONY, GE, HNS Insight, Proscan, Panasonic, Toshiba and Uniden brand names."[92] DIRECTV reported that it served approximately 1.6 million subscribers at the end of June 1996,[93] which is an increase of 167% over the 600,000 subscribers it reported serving at the end of June 1995.[94] DIRECTV had 2.03 million subscribers at the end of October 1996.[95]

- United States Satellite Broadcasting Company, Inc. ("USSB") provides service to subscribers using the same DSS receiving equipment, and one of the same satellites, as DIRECTV.[96] According to USSB, DIRECTV and USSB "share DSS and supporting

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[89] *Infra* App. C, Tbl. 2.

[90] DIRECTV and USSB are complementary services because subscribers use the same receiving equipment for the two services, and they offer mutually exclusive programming. In addition, a customer must subscribe to both services in order to receive all of the most popular cable programming.

[91] DIRECTV is an affiliate of HE Holdings, Inc. (formerly Hughes Aircraft Company), which is itself affiliated with the General Motors Corporation. As discussed below, AT&T has also acquired an equity interest in DIRECTV.

[92] *E.g.*, United States Satellite Broadcasting Co., *United States Satellite Broadcasting Company, Inc., Confirms Milestone of 1 Million Subscribers in a Letter to Shareholders* (press release), Oct. 9, 1996.

[93] DIRECTV Comments at 4.

[94] *1995 Report*, 11 FCC Rcd at 2081-82 ¶ 51.

[95] *Infra* App. C, Tbl. 1.

[96] *USSB Confirms Milestone of 1 Million Subscribers, supra.*

technology and offer 200 channels of complementary programming," and "jointly market and promote DSS and share an overall goal of maximizing DSS penetration of U.S. television households."[97] The programming that USSB offers (and DIRECTV does not) includes HBO, Showtime, The Movie Channel, Cinemax, FLIX, Lifetime, MTV, Comedy Central, Nickelodeon, and VH-1.[98] As of the end of June 1996, USSB was reported to have approximately 60% as many subscribers as DIRECTV (or approximately 960,000 subscribers), with only a "small portion" of those subscribers not included in DIRECTV's subscriber total.[99]

- PRIMESTAR PARTNERS, L.P. ("PRIMESTAR") currently offers service to subscribers throughout the continental United States using 36-inch dishes. PRIMESTAR is a joint venture of five cable MSOs, and GE American Communications, Inc.[100] Using a satellite operating in the Fixed Satellite Service ("FSS"), PRIMESTAR provides 95 channels of programming.[101] PRIMESTAR reported in its comments that it had 1,231,741 subscribers as of June 30, 1996,[102] which is an increase of over 145% when compared with the approximately 500,000 subscribers it reported having in June 1995.[103] PRIMESTAR had 1.55 million subscribers at the end of October 1996.[104] PRIMESTAR commented that it "plans to continue its service on the medium power successor" to its current satellite,[105] but it has been reported that PRIMESTAR may instead use eleven high-power DBS transponders to provide service using "developing compression technology that enables delivery of 150 channels to a dish 14 inches in size."[106]

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[97] *Id.*

[98] *See, e.g., USSB Channels*, http://www.ussbtv.com/channel1/content/content.html.

[99] *DTH Subscribers*, SkyREPORT, Sept. 1996, at 8 (table).

[100] The MSO partners are Comcast, Continental Cablevision, Cox Enterprises, TCI and Time Warner. Together, these MSOs are affiliated with cable systems that serve approximately 66.7% of cable subscribers nationwide. *E.g., infra* App. F, Tbl. 2. Continental has been acquired by U S West Media Group, which is an affiliate of U S West, Inc.

[101] PRIMESTAR Comments at 3.

[102] *Id.*

[103] *1995 Report*, 11 FCC Rcd at 2082 ¶ 51.

[104] *Infra* App. C, Tbl. 1.

[105] PRIMESTAR Comments at 2.

[106] *PrimeStar by TCI Still Wants Canadian Slotes, But Eyeing More of 119*, SkyREPORT Headline News, hhtp://www.skyreport.com/107star.htm, Oct. 7, 1996. Tempo Satellite, Inc. (a wholly-owned subsidiary of TCI), is (continued...)

- EchoStar Communications Corp. initiated service in March 1996 under the name DISH Network, and offers over 100 channels of programming to subscribers throughout the continental United States.[107] EchoStar passed the 200,000 subscriber mark in early October 1996,[108] and served over 235,000 subscribers as of the end of October 1996.[109] Directsat Corporation, an affiliate of EchoStar, launched its satellite on September 10, 1996, and the combined entity began delivering programming from the second satellite (which is at the same location--119°) in November 1996.[110] On August 30, 1996, the International Bureau granted an application filed by Direct Broadcast Satellite Corporation (DBSC) seeking permission to transfer to a wholly-owned subsidiary of EchoStar its DBS licenses at 61.5°, which cannot be used to serve the entire continental United States.[111] Instead, the licenses will permit EchoStar to use an additional eleven transponders to serve the eastern United States. EchoStar has stated that it intends to use those channels to provide "programming complementary to that offered by the DISH Network . . . [and] could also include Internet delivery applications, and in light of recent pronouncements from the U.S. Copyright Office, it may also be possible to include local programming to select large markets."[112]

- AlphaStar, a subsidiary of Tee-Comm Electronics, Inc., a satellite dish manufacturer, reportedly began offering service on July 1, 1996.[113] According to one source, AlphaStar would not provide subscriber figures, but company executives told the source that the service was adding subscribers at a steady, albeit slow rate, and that the company

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[106](...continued)
authorized to provide 11 channels of service from 119°, which can be used to serve the entire continental United States. *Tempo Satellite Inc. (Petition for Recon. & Clarification & Assignment of DBS Orbital Positions & Channels)*, Memorandum Opinion & Order, File No. DBS 88-04, 7 FCC Rcd 6597, 6600 ¶ 17 (1992). *See, e.g.*, John Indiana Ridgon, *Imedia Crams More Channels Onto Television*, Wall St. J., Dec. 4, 1996, at B1 (discussion of improvements in digital compression).

[107] *E.g.*, EchoStar Communications Corp., *EchoStar II Reaches Final Orbit* (press release), Sept. 30, 1996.

[108] Kim Mitchell & Alan Breznick, *DBS Price Wars Still Heating Up*, Cable World, Oct. 14, 1996, at 12.

[109] *Infra* App. C, Tbl. 1.

[110] *EchoStar II Reaches Final Orbit, supra.*

[111] *Direct Broadcast Satellite Corp. (Assignment of Direct Broadcast Satellite Orbital Positions and Channels)*, File No. DBS 87-01, Memorandum Opinion & Order, 11 FCC Rcd 10494 (1996).

[112] EchoStar Communications Corp., *EchoStar Announces FCC Approval of Merger with DBSC* (press release), M2 Presswire, Sept. 5, 1996.

[113] Alan Breznick, *In Crowded Skies, Alpha Star Has High Hopes*, Cable World, July 15, 1996, at 92.

projected that it would have between 100,000 and 150,000 subscribers by the end of 1996.[114] It is estimated that AlphaStar had approximately 12,000 subscribers at the end of October 1996.[115]

42. Several other entities plan to initiate DBS services within the next few years.

- In January 1996, the Commission auctioned licenses for 28 DBS channels that could be used to provide approximately 150 channels of programming to subscribers throughout the continental United States using contemporary digital compression technology. MCI Communications Corp. won that auction, bidding $682 million for the licenses (EchoStar bid $650 million and TCI bid $298 million), and is expected to launch the first of two satellites in October 1997, with video programming service beginning on November 1, 1997 if the launch goes as planned.[116] American Sky Broadcasting ("ASkyB"), a joint venture involving the FOX broadcast network and MCI Telecommunications, Inc., plans to offer a DBS service using MCI's satellites.[117]

- Continental Satellite Corporation ("CSC")[118] has been assigned a total of 22 DBS channels. Eleven of those DBS channels can be used to serve the eastern and central United States, and the other eleven can be used to provide service to the western and central United States.[119] On November 21, 1995, CSC was granted an extension of its conditional construction permit to August 15, 1999, which will allow CSC to construct, launch, and begin operating its DBS system at two orbital locations.[120]

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[114] Jane B. Goodger, *Amway Breaks with AlphaStar as Tee-Comm Eyes Canada*, Satellite Bus. News, Aug. 28, 1996, at 1, 26.

[115] *Infra* App. C, Tbl. 1.

[116] *ASkyB, More Than a Year Away From Launch, Seeks Receiver Supplier*, SkyREPORT Headline News, http://www.skyreport.com/109sky.htm, Oct. 9, 1996.

[117] *E.g., News Corp. Forms DBS Firms to Market Proposed DBS Services with MCI Telecommunications in United States with Creation of 2 Companies*, Sat. Bus. News, May 8, 1996, at 1.

[118] Continental Satellite Corporation is not affiliated with the cable MSO Continental Cablevision. The International Bureau does have before it, however, a petition for permission to assign 50% control over the licenses held by CSC to R/L DBS, which is a wholly owned subsidiary of Rainbow Programming Corp, which is, in turn, a wholly-owned subsidiary of the cable MSO Cablevision Systems Corp., *Application of R/L DBS for Assignment of Continental DBS Permits*, File No. DBS 87-01 (1996).

[119] *Continental Satellite Corp. (Assignment of DBS Orbital Positions & Channels)*, File No. 87-01/49-SAT-TC-95, Memorandum Opinion & Order, 10 FCC Rcd 10473, 10479 ¶ 44 (IB 1995).

[120] *Continental Satellite Corp. (Applications for Extension of Construction Permit)*, File No. 130-SAT-EXT-95, Memorandum & Order, 11 FCC Rcd 1157 ¶ 4 (IB 1995).

- Dominion Video Satellite, Inc. has been assigned eight DBS channels that can be used to serve the eastern and central United States, and eight DBS channels that can be used to serve subscribers in the western and central United States.[121] On October 7, 1996 Dominion withdrew its appeal of that assignment.[122]

43. Last year, the Commission reported that the prices charged for DSS equipment used to receive programming from DIRECTV and USSB had started to decline, falling to as low as $597, and that equipment prices were expected to continue to decline as additional manufacturers began distributing their models.[123] When EchoStar initiated service in June 1996, it offered receiving equipment for $199 to customers that signed up for a full year's programming (at $300), which was a significantly lower price than any of the prices offered for DSS equipment at that time.[124] At least two DSS manufacturers, Thomson and Toshiba, lowered the prices for their basic models to $399 later in the summer, and DIRECTV announced on August 26, 1996 that it would offer a $200 rebate to subscribers that purchased any brand of DSS equipment and a one-year subscription to its "Total Choice" programming package.[125] It has also been reported that price reductions are expected to continue, with one cable network CEO quoted as saying "[s]o far, we haven't heard too much about [DBS] cannibalizing major urban systems, . . . [b]ut from what they've told us, we expect [DBS] prices to fall even more and [cable erosion] to happen on a more significant basis beginning next year."[126]

44. In addition to offering discounted prices, DBS providers are heavily marketing their services. According to one commenter, DBS companies are projected to spend a combined $300 million on advertising in 1996, as well as utilize affiliations with other major corporations to increase their market share.[127] USSB, for example plans to launch a new advertising campaign on movie theater screens,[128] and its dealers are giving new subscribers a $40 discount in addition

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[121] *Dominion Video Satellite, Inc. (Assignment of DBS Orbital Positions & Channels)*, File No. DBS 81-08/ 84-05/92-01MP, Memorandum Opinion & Order, 10 FCC Rcd 10480, 10482 ¶ 13 (IB 1995).

[122] Stipulation for Dismissal of Appeal, *Dominion Video Satellite, Inc. v. FCC*, No. 95-1547 (D.C. Cir. filed Oct. 7, 1996).

[123] *1995 Report*, 11 FCC Rcd at 2085 ¶ 54.

[124] *E.g., DBS Wars Roil Video Waters*, SkyREPORT, Sept. 1996, at 1.

[125] DIRECTV, *New DIRECTV $200 Cash Back Offer Lowers DSS Hardware Price to $199 Nationwide* (press release), DBS Online! - Press Release Archives, Aug. 26, 1996, http://www.dbs.digifix.com/DBS/NewPR/96-08-27

[126] Kim Mitchell, *Dishy Deals*, Cable World, Sept. 2, 1996, at 6. *See also DBS Wars Roil Video Waters, supra* (small cable systems reportedly admitted that DBS has cut into their subscribership, with losses in the 1% to 3% range, with additional losses in the form of cable subscribers cutting back to taking only basic cable).

[127] NCTA Comments at 13.

[128] *Id.*